

July 2015

Allen County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 17 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Allen County economy.¹ These 17 sectors have a total direct output of approximately \$253 million and support 1,049.1 jobs in Allen County. Running the model for all 17 sectors simultaneously produces the following results:

Agriculture Contribution in Allen County

		% of Total	Total	% of Gross		% of Gross
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Impact Type ²	Employment	Employment	Value Added ³	Product ⁴	Output ⁵	Product
Direct Effect	1,049.1	11%	\$76,341,313	13%	\$252,753,418	42%
Indirect Effect	189.0	2%	\$15,171,113	3%	\$27,253,727	5%
Induced Effect	161.5	2%	\$10,319,992	2%	\$18,131,662	3%
Total Effect	1,399.5	15%	\$101,832,418	17%	\$298,138,806	50%

As shown in the above table, agriculture, food, and food processing supports 1,399.5 jobs, or 15% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$298 million, roughly 50% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their Total Value Added as a percentage of GRP. Total value added by the 17 agriculture, food, and food processing sectors is approximately \$102 million, or 17% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 17% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting: https://implan.com/index.php?option=com_content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Confectionery manufacturing from purchased chocolate is the top employer in the agriculture industry with 483.0 employees. This table also shows the amount of jobs that are created by the agriculture industry in Allen County.

Top 10 Industries Affected by Employment

	Total	Total
Sector Description:	Employment	Output
Confectionery manufacturing from purchased chocolate	483.0	\$161,335,029
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and		. ,
farming	270.9	\$39,201,912
All other crop farming	146.0	\$10,347,878
Grain farming	55.8	\$10,910,555
Wholesale trade	43.8	\$8,858,187
Dairy cattle and milk production	29.1	\$3,030,254
Support activities for agriculture and forestry		\$1,725,589
Real estate	27.2	\$4,300,246
Farm machinery and equipment manufacturing	18.3	\$11,171,461
Veterinary services	11.9	\$657,857

The Confectionery manufacturing from purchased chocolate industry directly contributes approximately \$161 million to Allen County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Top to maustics Anected by Output		
	Total	Total
Sector Description:	Employment	Output
Confectionery manufacturing from purchased chocolate	483.0	\$161,335,029
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and		
farming	270.9	\$39,201,912
Oilseed farming	10.1	\$12,261,868
Farm machinery and equipment manufacturing	18.3	\$11,171,461
Grain farming	55.8	\$10,910,555
All other crop farming		\$10,347,878
Wholesale trade	43.8	\$8,858,187
Real estate	27.2	\$4,300,246
Owner-occupied dwellings	0.0	\$3,848,605
Dairy cattle and milk production	29.1	\$3,030,254

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Allen County's economy.

Sector Description:	Employment	Output
Oilseed farming	10.14	\$12,261,868
Grain farming	55.81	\$10,910,555
Vegetable and melon farming	0.32	\$34,896
Tree nut farming	0.12	\$23,799
Greenhouse, nursery, and floriculture production	6.73	\$662,942
All other crop farming	146.05	\$10,347,878
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and		"
farming	270.95	\$39,201,912
Dairy cattle and milk production	29.14	\$3,030,254
Poultry and egg production	0.55	\$151,006
Animal production, except cattle and poultry and eggs	4.88	\$276,336
Commercial logging	1.50	\$128,598
Confectionery manufacturing from purchased chocolate	482.54	\$161,190,832
Meat processed from carcasses		\$2,091,310
Bread and bakery product, except frozen, manufacturing		\$561,814
Frozen cakes and other pastries manufacturing	0.35	\$50,100
Farm machinery and equipment manufacturing	18.28	\$11,171,461
Veterinary services	11.90	\$657,857
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All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not incorporate the associated retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.